

ARDGLASS HARBOUR.

RETURN (in conclusion) to an Order of the Honourable The House of Commons,
dated 10 August 1853;—for,

A COPY "of Report of Captain *Denham* and Mr. *Rendel*, recommending
the Restoration of ARDGLASS HARBOUR."

Admiralty,
19 August 1853. }

J. H. HAY, Chief Clerk.

REPORT of Captain *Denham*, R. N., F. R. S.

ARDGLASS, in a nautical point of view, presents the following inducements to render it a Harbour of Refuge:—

It is situated on that easternmost protrusion of the Coast of Ireland which in a convex sweep of 30 miles forms the first narrowing of the Irish Sea, relatively with the Isle of Man and the Mull of Galloway, while presenting about midway on its curve that salient cluster of dangers which all vessels to or from the south-westward, in connexion with Belfast or the Clyde, have to round. These dangers are indicated by the South Rock Lighthouse, and lie 10½ miles eastward of Ardglass; whilst at 2½ miles westward of Ardglass is indicated by St. John's Point Lighthouse the eastern born of that receding portion of the coast known as Dundrum Bay.

Essentially necessary as those dangers are, they cannot wholly avert the difficulties into which a vessel is drawn whose course up channel along this coast upon an E. S. E. wind is diverted by the indraught of the Strangford Estuary, so as to prevent her weathering the South Rock, after passing Ardglass at six to eight mile offing; or that of a vessel proceeding down channel on a S. S. E. wind, after weathering the South Rock, being headed by even one point of wind, which, together with the indraught of Dundrum Bay, as she passes St. John's Point, will be sure to involve her in the hopeless toils of that Bay. These are predicaments too often experienced in this locality, where the tide of flood meets from the northward as well as southward; so that the hope of reaching beyond the confluence naturally adds to a reluctance to bear up, on being met by an adverse spurt of wind, 45 miles back to Belfast Bay, or retreat 61 miles to Kingstown Mole,—a time-losing alternative, however, that can alone ensure safety if adopted in time; because not even a coaster is justified, at present, in looking to Ardglass as an asylum, although, in like circumstances, it would be lying but six miles under his lee; and where, if harboured at this stage of his voyage, he would have a fair departure directly the lee-shore wind moderated, and veered the couple of points he required in his favour.

The aspect of this trend of coast renders it a dead lee-shore upon a S. S. E. wind, which though not a prevailing quarter, is often a violent wind, is an unsteady wind, brings down a heavy sea, and is, in winter season, frequently attended with sleet and a murky atmosphere; so that keeping the offing, unless luckily well over to the Isle of Man (30 miles distant), is fraught with perplexities and risks.

It must have been such considerations that prompted private efforts, at an outlay of some 16,000*l.*, increased by Government loan to 22,000*l.*, to cover the most available cove in Ardglass Bay, from the aspect winds, by a succession of Harbour Works, that would afford refuge to a passing but baffled vessel, and to the fleets of fishing craft which congregate betwixt the Isle of Man and this part of the Irish coast from Arklow, Cornwall, and the Isle of Man, engaged in the herring, cod, and haddock fishery.

The Harbour Works in question were begun by the proprietor of the locality, Mr. Ogilvie, in 1812, and subsequently carried on by his heir, Major Aubrey Beauclerc, to the year 1836, under an Act of 6 & 7 Geo. IV., cap. 80. Those works consisted, first, of a wharf and glacis, or sea pavement, upon the ledge of rocks which formed the natural beaching cove near Ardglass Castle, situated one-third up the western shore of the inlet called "Ardglass Bay." A lighthouse was established upon the extremity of this pier by the Ballast Board of Ireland. The obvious advantage to the Irish Sea fishery and coasting trade, derived from works which merely sheltered in nine and six feet water half an acre of low-water area, suggested to the spirited proprietor, with the advice and after the design of the late Mr. Rennie, and eventually under the direction of Sir John Rennie, an extension of the first pier in the same line of direction; viz., due east at a right angle to the in and out trend of the main inlet, and parallel to the seaward aspect. This extension projected 245 feet into 17 feet water at low-water springs, and covered an additional acre of 13, 12, and 9 feet water.

The Ballast Board erected a suitable lighthouse upon the pier-head, and pulled down the former inner lighthouse.

With this facility for entering the Bay and rounding into the Cove by night as well as day, and availing of the quickly promulgated increased capacity of Ardglass as a haven, 210 vessels took shelter, some of 150 tons burthen, within it, in the first year of its completion, and 400 to 500 fishing craft frequented it, and received in one year for herrings landed on the New Quay, 20,000 l.

Unfortunately in the second year (1838) of this local prosperity and important succour to the weather-driven mariner, as well as convenient market for the fish which this part of the Irish sea teems with, and which the surrounding population so much require, the new pier became breached by the sea of an autumnal gale at S.S.E., the "cheesehead" became undermined, and with the lighthouse toppled outwards into 20 feet water, whilst the pier itself was swept into the haven, leaving a débris which comes above low-water level as much as 10 feet, where steamers berthed in 15 feet water just before. This débris is urged by succeeding gales into the anchorage, and at this date has encroached upon the former berthing 110 feet, and thus contracting the entrance to the haven, and the space for rounding to clear of the rocks to leeward, as well as destroying the only quay room for lying alongside of, at low-water periods.

The débris in question has presented since the prostration of the pier and lighthouse, a period of 13 years, an unbeaconed ledge of rocks, which, protruding as it does towards the most projecting rocks on the eastern side of the Bay of Ardglass, reduces the fairway passage by hidden dangers, to 100 yards, without any guide but a temporary light at the head of the bay, which can effect little more than indicate to the mariner in the offing that he is abreast of Ardglass Bay.

At the period of these New Harbour works being demolished, they were under the care of the Board of Works of Ireland, the circumstances attending which are fully detailed in the appended documents.

Reverting to the inducements for rendering the inlet or Bay of Ardglass a Harbour of Refuge, it is to be borne in mind, that it is the only accessible place at all stages of the tide, and not requiring a local pilot, between Kingstown Mole and Belfast Bay, a distance of 100 miles. It is not subject to any indraught, or any appreciable effects of tidal set within it or at its mouth. It has no bar or any detached sand-bank or foul ground that obstruct approach, or eventually affect its soundings by deposit.

It is easily to be identified by day from its remarkable group of ancient castle towers, a modern tower upon its ward, and its church spire; and by night the coast lights (St. John's Point and South Rock) do not shut in, with reference to the adjacent coast line, until within half a mile of its mouth, when its own light would be clearly in sight, while for hazy weather the soundings gradually shoal up from 33 fathoms (mud and shells) at 10 miles off, to 15 fathoms (coarse sand) at three miles off, and 12 fathoms (sand and broken shells) at one mile off.

Ardglass presents to the engineer certain encouraging features; there is no disposition in its formation to silt up; it receives no outfall of land waters; its shores

shores are not of a friable nature; it has exhaustless quarries in connexion with high-water mark, well adapted for submarine structure, the free use of which, as well as frontage, is already ceded by Major Beauchamp for such works, and abundance of cheap labour is at hand to work them.

The discouraging points are the want of clear water space, where shelter has hitherto been coveted, viz., the "Castle Cove," and the heavy sea to be encountered with; for in proportion as the Bay of Ardglass is easy of access, by presenting a wide-spread mouth in the eye of the on-shore wind, so is its whole area exposed to a heavy sea, to resist which and to cover any portion, even the two acres of cove, floating and beaching space already described, requires a massiveness of structure really of too costly a nature for the space it has to cover, because neither in space nor depth of water could it become, in the broad sense of the term, a "Harbour of Refuge;" such a term implies in these days a resource for any sized ship that may hear up for it, whether disabled, or to spare her gear, under strong adverse winds.

Ardglass hitherto has only offered an asylum to the coasting class of vessels, its harbour works having been reared upon its inner and shallower section of soundings, which does not afford more than 15 feet draught of water, and where in no part does the breadth exceed 130 yards from margin to margin at low water. This half of the bay (after passing Ardglass Haven) gradually shoals up to the strand at its head, where a dry harbour (called Kimmer's Port) has been constructed, and where Major Beauchamp is now forming a flat-dock to protect the dozen trading vessels of 108 to 21 tons burthen which belong to the port, and who, by choosing their time of tide not earlier than three-quarters flood, can approach Kimmer's Port unmindful of the overlapping fangs of rock which spring out from either side of this upper half of the bay. Kimmer's Pier is of much slighter construction than Ardglass Pier was, but as the weight of the wave is somewhat expended in its progress from the mouth of the bay, it sustains it well; but it partakes of that ebullition and run which is a characteristic of the Bay of Ardglass, by reason of the inadequate area, compared with the width of its mouth, for the sea to exhaust itself; besides which, the jutting rocks deflect it from side to side, and occasion the run and undulation which renders it dangerous to loaded vessels when taking the ground on the ebb, or beginning to float on the flood.

Doubtless much of this ebullition might be mitigated by removing certain portions of the rocky ledges which come above the surface, and no part would be more improved in space and tranquillity of berthing-water, as well as for beaching, than the cove near Ardglass Castle; therefore, any estimate for restoring the now prostrate pier, scarping and lowering the rocks directly northward of the pier, or constructing a "spur" or "cheveron" on the opposite side of the bay, out from the Ardole Rocks to the eight feet ledge (which, as it would overlap the south-east aspect of the Castle Cove pier, would ward off the sea from that quarter, and likewise check the sweeping south-western sea), should form a prominent item.

Looking to the extent of refuge and commercial good which the pier and its lighthouse conferred, its present state is to be deplored, and from the experience that no ordinary structure can restore it, which, besides removing the debris, amounting to 2,288 cubic yards of rubble and masonry, two-thirds of which are submerged 15 feet (though much of it might be used again), local means are not likely to be employed in that undertaking. The concerns of the harbour are vested in the hands of Commissioners without resources beyond the harbour dues, which, with what Major Beauchamp lays out from day to day, scarcely preserves the original inner section pier and glacis from demolition.

It is under the lee of this former pier, with the debris of the new pier acting somewhat as a breakwater, that as many as 137 vessels per annum still take shelter, notwithstanding the operation of the harbour light is no longer to guide them up to and round the pier head, but merely denotes when they are right off the mouth of the bay itself. This light is exhibited now from a stable-loft window at the head of the bay, and is intended to throw its refulgence so definedly down the fairway of the bay, as to clear by its limits the rains of the pier on the western hand, and the rocky fangs upon the eastern hand; but this

never-yet-obtained object, by a single light, fails as usual here, for it is as apt to lead on to the dangers right and left, as between them. The western margin of its refulgence intersects 150 feet of the pier's débris; indeed, the light, placed as it is, not only fails in denoting a fairway direction, but imparts no notion of distance, so that a vessel has been known to run past the Pier Haven, right upon the strand at the head of the bay. In fact, no stranger can possibly avail himself of Ardglass Harbour in a dark night, until the light is restored to its former site. This should be done by means of a pile structure on the extreme of the débris of the pier, or by rearing a light-tower upon the foundation of the late "cheese-head," which bears two feet at low-water springs, and is in a fit state to receive a superstructure.

To show how available the harbour is by daylight (even to a stranger without a pilot), in its present unbeaconed state, it is only necessary to cite the case of H. M. S. "Comet," since that steamer, in January last, bore up for Ardglass "under the very worst circumstances with respect to weather." The first time, not only had no one on board ever been there, but their chart indicated the existence of Pier-head and Lighthouse, although both had ceased for the last 13 years; nevertheless they took up a safe berth, and after examining during these two visits the capabilities of the Harbour, recommended it most strongly to the Admiralty Harbour Board, as highly worthy of official attention, with a view to rendering it the *boat-fish* Harbour of Refuge so much desired in this part of the Irish Sea.

Most nautical men will concur in this recommendation; and so far as this restoration of the Harbour Works can effect it, the Board of Works, it would seem, have only been waiting for funds for following it out; for we find the following passages in their statement of the matters concerning Ardglass, to the Lord Lieutenant of Ireland, dated 11th March 1848:—

"This Board is fully impressed with the value of Ardglass Harbour, and still entertains the hope that means may be provided for its restoration upon a permanent footing: the cost of effecting this is quite beyond the reach of any fund at present connected with this department. It may be added that in 1840 this Board, under the sanction of the Treasury, offered to pay half of the cost of restoring the Harbour, provided the parties interested supplied the other half, and also undertook the maintenance of the Harbour, which was declined."

Reverting to the extent those works were availed of by the coaster and fishing craft, and how the commerce of the district was promoted, all of which have been for 18 years sustaining great deprivation, and observing that the haven, which was improved to a certain extent by private enterprise, and eventually completed by public funds under the Government countenance and surveillance, became suddenly, through the instability of the outer and finishing section of the structure, a mass of débris, of the nature of a half-tide reef of rocks, stretching crosswise into former deep water, and that this dangerous obstruction is without beacon or light; looking to these circumstances, it is obvious that the Harbour of Ardglass is unfortunately in a worse condition than before the outlay of the recited 22,000 *l.*, and that its works ought to be restored with the addition of the eastern side spar alluded to.

Ardglass itself stands in a position of commercial importance, inasmuch as it is only seven miles from Downpatrick, the assize town of the county of Down, which is distinguished by the industry of its population, but whose merchants, having been defeated in their attempts to establish steamers through the difficulties of Strangford Straits, are obliged to cart their goods from Belfast, a distance of 18 miles, at 10 *d.* per cwt.; whereas they would (as they did in 1836-7) import them direct from England, through Ardglass, more especially as a railway communication with Downpatrick has been agreed upon; this, with the connecting link of railway which the Belfast and county of Down Line will present, will place Ardglass within one hour's transit of Belfast. Up to this point of view, the pretensions of Ardglass have been directed to purely commercial attainments, combined with an asylum for coasters and fishing craft. The practicability of rendering it a Refuge Harbour to the voyager under stress of weather may have been glanced at, but could never be entertained by local enterprise,

enterprise, because such can only be entertained at a consequent cost of projecting breakwater tongue from the headlands which form the mouth of the bay,—an undertaking too great for private funds, but certainly worthy of an appropriation of national funds.

By such covering works, 22 acres of good anchoring ground, in from 18 to 45 feet water (*i. e.*, equal to one-fifth of Kingstown Mole, or the berthing of a dozen large class ships) might be enclosed from all winds, leaving an entrance of 200 yards width. This entrance would be free of any external dangers on whatever line of direction, over the 180 degrees of offing aspect it might happen to be approached upon; so that if any vessel found herself oppressed by the right-on sea, (the turbulence of which is often increased by the Channel tides, which meet in the vicinity) she might unhesitatingly, without the aid of a pilot, bear up, and, if of more than 12 feet draught, find instant anchorage in perfect shelter, or, being not more than 12 feet draught, might proceed into the Castle Haven, where even the present ground-swell would no longer exist.

Under such cover, not only could the Castle Haven be restored by works at a very much less cost, because not half so massive as they must be if adapted to the present fetch of sea; but docks and other local facilities (which its 16 feet rise of tide and shore feature invite and favour) would doubtless be undertaken by the commercial interests around.

Thus, by the Government adopting, in the way described, this only accessible inlet (without depending on tide, pilot, or day-light) on the coast between Dublin and Belfast, an anchorage would be afforded to the weather-driven or baffled ship, of fair proportion of berthing space to the voyagers using this side of the channel, and an incentive would follow for local enterprise to re-establish port shelter and commercial facilities; whilst two other objects suggest themselves as worthy the attention of Government; *viz.*, the eligibility of the port as a Packet Station between England and the North of Ireland.

The inducement on this point may be stated thus: The sea passage from Holyhead is but 13 miles, or one hour's steaming more, than to Kingstown, and without a single danger in the track. The difference of the land journey to Belfast, after the mails and passengers land at Kingstown, would be three hours in advance if landed at Ardglass, or after deducting the additional hour's sea-passage, a clear acceleration of from two to three hours would accrue in favour of Ardglass; indeed the saving of time would amount to 10 hours, if the present system of detaining the mails at Dublin from 12 at night to seven in the morning continued.

Then as respects Liverpool, Ardglass lies 30 miles nearer to it than Belfast, say three hours less steaming, which, minus the one hour's railway transit from Belfast, leaves Belfast two to three hours nearer Liverpool *via* Ardglass.

These accelerations equally advantage Londonderry, &c. The next adaptation which Ardglass suggests of a public nature, is that of a military post. The conformation of its circumjacent isthmus (with its dryness of soil and water-springs) only require harbour means for safe berthing of transports in case of desiring to land or embark troops and artillery, when the wind is on shore, all presenting resources and capabilities for rendering it an important military depot; indeed, its Castle remains and its wards indicate that Ardglass was formerly a stronghold.

Recurring to the aspect of Ardglass Bay, it should be observed, that its anchoring sound is even now sheltered from the prevailing winds; vessels frequently anchor in it under strong winds from west, round northward to E. N. E., and the Castle Cove itself is only susceptible of sea from eight points of the compass, *viz.*, S. E. by E. right on to the pier, and the deflected effects of sea brought in by the wind southward to S. W. by S. The centre of the Sound faces S. $\frac{1}{2}$ E., which is the bearing of Holyhead, distant 67 miles.

(signed) *H. M. Denham,*
Captain, R. N.

1 December 1851.